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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,085

09/26/2005

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D-3196

5835

7590

08/02/2007

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EXAMINER

DOE, SHANTA G

ART UNIT

PAPER NUMBER

1709

MAIL DATE

DELIVERY MODE

08/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,085

Applicant(s)

GRUDACE ET AL.

Examiner

Shanta G. Doe

Art Unit

1709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-40 is/are pending in the application.
- 4a) Of the above claim(s) 36-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-34 is/are rejected.
- 7) ☒ Claim(s) 35 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/06/2005.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in the reply filed on July 14, 2007 is acknowledged. The traversal is on the ground(s) that the claims of groups I and II are not so unrelated so as to cause an undue burden on the examiner in examining all of the claims of the application. This is not found persuasive because the current application was filed under 35 U.S.C 371 and in order for the claims of groups one and two to be considered the same/ related inventions they have to be linked by an inventive concept with a special technical feature (meaning special technical feature can not be found in the prior art) which in the instant application as stated by the examiner in the office action dated June 7 2007 was not the case.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 36 – 39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected oxygen gas generator apparatus, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 14, 2007.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the cylinder cross-section and the ignition means being positioned close or adjacent to the flat surface of

Art Unit: 1709

the cylinder as claimed in claim 34 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1709

5. Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 33, the claim recites the limitation "the region of ignition" in claim limitation. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Waldeck (US 3,785,334).

Regarding claim 31, Waldeck discloses a chemical gas generator comprising a generating device (container 40 holds the fuel 41 which is a combustible material and an oxidizer which when ignited will produce gaseous fluid) for producing gas by chemical reaction (combustion), the device comprising friction-induced spark generating ignition means (a striker member (62) contacting and abrading on the plug 60 to ignite it)(see col. lines 20-35, 47-50; col.3 lines 22 – 35, lines 38 – 42; coo. 4 lines 30 - 35).

Regarding claim 33, Waldeck discloses a generator as claimed in claim 31, wherein the

Art Unit: 1709

ignition means also comprises means for abrading a surface of the generating device in the region of ignition (a striker member (62) contacting and abrading on the plug 60 to ignite it)(see col.3 lines 22 – 35).

8. Claim 31 is rejected under 35 U.S.C. 102(b) as being anticipated by Nishii (US 5,725, 834).

Regarding claim 31, Nishii discloses a chemical gas generator comprising a generating device for producing gas by chemical reaction (a chemical gas generator (31) comprising an cylindrical oxygen source candle (32) with ignition pellet portion and a ignition device F'), the device comprising friction-induced spark generating ignition means (the hammer (48) piston collides with primer 43, the primer 43 sparks and the ignition pellet is ignited)(see fig 6, 7; col. 9 lines 40 – 50, 60- 65; col. 10 lines 60 –67)

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1709

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 32, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishii (US 5,725, 834) in view of Endelson (US 4,517,994)

Regarding claim 32, Nishii disclose a generator as claimed in claim 31, wherein the spark generating means (a the hammer (48) piston collide with primer 43, the primer 43 sparks and the ignition pellet is ignited)(see fig 6, 7; col. 9 lines 40 – 20, 60- 65; col. 10 lines 60 –67). Nishii does not disclose a generator of claim 31, wherein the spark

Art Unit: 1709

generating means comprises a friction wheel and flint. Endelson discloses that it is known in the art to ignite a device by friction-induced spark generating ignition means comprising a flint and wheel (the device is ignited by sparks generated by a flint abraded by a wheel)(see Endelson col. 1 lines 22 – 25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the functionally equivalent friction-induced spark generating ignition mean (flint abraded by wheel) as taught by Endelson in the device of Nishii since Nishii admits that it was well known in the art at the time to use such means to ignite devices.

Regarding claim 33, Nishii discloses a generator as claimed in claim 31. Nishii fails to disclose a generator as claimed in claim 31 wherein the ignition means also comprises means for abrading a surface of the generating device in the region of ignition.

Endelson discloses that it is known in the art to have ignition means comprising means for abrading a surface of the generating a device in the region of ignition (a flint abraded by a wheel)(see Endelson col. 1 lines 22 – 25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the functionally equivalent ignition means (flint abraded by wheel) as taught by Endelson in the device of Nishii, since Nishii admits that it was well known in the art at the time of the invention to use such means to ignite devices.

Regarding claim 34, Nishii discloses a generator as claimed in claim 31, wherein the device is in the form of a cylinder having a cross-section of a major segment of a circle

Art Unit: 1709

with the ignition means located in a central region (primer 43 and ignition pellet portion 33)(see Nishii fig 6, 7, 8; col. 9 lines 40 – 20, 60- 65; col. 10 lines 60 –67). Nishii does not disclose the ignition means being positioned close or adjacent to the flat surface of the cylinder. However, the ignition means being positioned close or adjacent to the flat surface of the cylinder does not functionally distinguish (the ignition means is used to ignite gas generating (candle) means) the invention from what is being taught in the prior art.

Allowable Subject Matter

13. Claims 35 and 40 are objected to as being dependent upon a rejected base claim (claim 31), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is an examiner's statement of reasons for allowance: The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 35 and 40 a generator as claimed in claim 31, wherein the device is arranged to sustain during operation propagation of a plurality of burn fronts there through, the fronts propagating/traveling in generally different/opposite directions could not be found in the prior art or a combination of prior arts. The closest prior art to the applicant's invention of the device being able to sustain during operation a plurality/

Art Unit: 1709

two of burn fronts propagating/traveling in different/opposite direction is Bovard et al (US 3,516,797). Bovard discloses an oxygen generator having a burn front, which propagates in a radial direction.

Conclusion

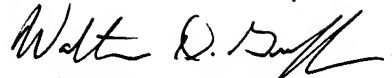
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shanta G. Doe whose telephone number is 571-270-3152. The examiner can normally be reached on Mon - Fri 8am-5pm(alternate Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 1709

GSD

A handwritten signature in black ink, appearing to read "Walter D. Griffin".

WALTER D. GRIFFIN
SUPERVISORY PATENT EXAMINER